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RAW SEQUENCE LISTING DATE: 02/07/2002
PATENT APPLICATION: US/10/038,271 TIME: 18:52:01

Input Set : N:\Crf3\RULE60\10038271.txt
Output Set: N:\CRF3\02072002\J038271.raw

```
  5 <110> APPLICANT: Fallaux, Frits J.
  7        Hoeben, Robert C.
  9        Bout, Abraham
 11        Valerio, Domenico
 13        Van der Eb, Alex J.
 16 <120> TITLE OF INVENTION: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT ADENOVIRUS TO BE
USED IN
 18        GENE THERAPY
 21 <130> FILE REFERENCE: 3833.1US
 24 <140> CURRENT APPLICATION NUMBER: 10/038,271
 26 <141> CURRENT FILING DATE: 2001-10-23
 28 <150> PRIOR APPLICATION NUMBER: 09/333,820
 30 <151> PRIOR FILING DATE: 1999-06-15
 32 <150> PRIOR APPLICATION NUMBER: US 08/793,170
 34 <151> PRIOR FILING DATE: 1997-03-25
 37 <150> PRIOR APPLICATION NUMBER: PCT/NL96/00244
 39 <151> PRIOR FILING DATE: 1996-06-14
 42 <150> PRIOR APPLICATION NUMBER: EP 95201728.3
 44 <151> PRIOR FILING DATE: 1995-06-26
 47 <150> PRIOR APPLICATION NUMBER: EP 95201611.1
 49 <151> PRIOR FILING DATE: 1995-06-15
 52 <160> NUMBER OF SEQ ID NOS: 22
 55 <170> SOFTWARE: Corel WordPerfect 8.0
 59 <210> SEQ ID NO: 1
 61 <211> LENGTH: 21
 63 <212> TYPE: DNA
 65 <213> ORGANISM: Artificial Sequence
 68 <220> FEATURE:
W--> 70 <221> NAME/KEY:
 72 <222> LOCATION:
 74 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer Ea-1
 77 <400> SEQUENCE: 1
 79    cgtgtagtgt atttataccc g                                        21
 82 <210> SEQ ID NO: 2
 84 <211> LENGTH: 21
 86 <212> TYPE: DNA
 88 <213> ORGANISM: Artificial Sequence
 91 <220> FEATURE:
W--> 93 <221> NAME/KEY:
 95 <222> LOCATION:
 97 <223> OTHER INFORMATION: Description of Artifical Sequence: Primer Ea-2
100 <400> SEQUENCE: 2
102    .tcgtcactgg gtggaaagcc a                                       21
105 <210> SEQ ID NO: 3
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RAW SEQUENCE LISTING   DATE: 02/07/2002
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         107 <211> LENGTH: 21
         109 <212> TYPE: DNA
         111 <213> ORGANISM: Artificial Sequence
         115 <220> FEATURE:
W-->     117 <221> NAME/KEY:
         119 <222> LOCATION:
         121 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer Ea-3
         124 <400> SEQUENCE: 3
         126     tacccgccgt cctaaaatgg c                                    21
         129 <210> SEQ ID NO: 4
         131 <211> LENGTH: 20
         133 <212> TYPE: DNA
         135 <213> ORGANISM: Artificial Sequence
         138 <220> FEATURE:
W-->     140 <221> NAME/KEY:
         142 <222> LOCATION:
         144 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer Ea-5
         147 <400> SEQUENCE: 4
         149     tggacttgag ctgtaaacgc                                      20
         152 <210> SEQ ID NO: 5
         154 <211> LENGTH: 21
         156 <212> TYPE: DNA
         158 <213> ORGANISM: Artificial Sequence
         161 <220> FEATURE:
W-->     163 <221> NAME/KEY:
         165 <222> LOCATION:
         167 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer Ep-2
         171 <400> SEQUENCE: 5
         173     gcctccatgg aggtcagatg t                                    21
         176 <210> SEQ ID NO: 6
         178 <211> LENGTH: 20
         180 <212> TYPE: DNA
         182 <213> ORGANISM: Artificial Sequence
         185 <220> FEATURE:
W-->     187 <221> NAME/KEY:
         189 <222> LOCATION:
         191 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer Eb-1
         194 <400> SEQUENCE: 6
         196     gcttgagccc gagacatgtc                                      20
         199 <210> SEQ ID NO: 7
         201 <211> LENGTH: 24
         203 <212> TYPE: DNA
         205 <213> ORGANISM: Artificial Sequence
         208 <220> FEATURE:
W-->     210 <221> NAME/KEY:
         212 <222> LOCATION:
         214 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer Eb-2
         217 <400> SEQUENCE: 7
         219     cccctcgagc tcaatctgta tctt                                 24
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RAW SEQUENCE LISTING   DATE: 02/07/2002
PATENT APPLICATION: US/10/038,271   TIME: 18:52:01

Input Set : N:\Crf3\RULE60\10038271.txt
Output Set: N:\CRF3\02072002\J038271.raw

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      222 <210> SEQ ID NO: 8
      224 <211> LENGTH: 27
      226 <212> TYPE: DNA
      228 <213> ORGANISM: Artificial Sequence
      231 <220> FEATURE:
W--> 233 <221> NAME/KEY:
      235 <222> LOCATION:
      237 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer SV40-1
      240 <400> SEQUENCE: 8
      242     gggggatccg aacttgttta ttgcagc                                    27
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      249 <212> TYPE: DNA
      251 <213> ORGANISM: Artificial Sequence
      254 <220> FEATURE:
W--> 256 <221> NAME/KEY:
      258 <222> LOCATION:
      260 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer SV40-2
      263 <400> SEQUENCE: 9
      265     gggagatcta gacatgataa gatac                                      25
      268 <210> SEQ ID NO: 10
      270 <211> LENGTH: 27
      272 <212> TYPE: DNA
      274 <213> ORGANISM: Artificial Sequence
      277 <220> FEATURE:
W--> 279 <221> NAME/KEY:
      281 <222> LOCATION:
      283 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer Ad5-1
      286 <400> SEQUENCE: 10
      288     gggagatctg tactgaaatg tgtgggc                                    27
      291 <210> SEQ ID NO: 11
      293 <211> LENGTH: 24
      295 <212> TYPE: DNA
      297 <213> ORGANISM: Artificial Sequence
      300 <220> FEATURE:
W--> 302 <221> NAME/KEY:
      304 <222> LOCATION:
      306 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer Ad5-2
      309 <400> SEQUENCE: 11
      311     ggaggctgca gtctccaacg gcgt                                       24
      314 <210> SEQ ID NO: 12
      316 <211> LENGTH: 27
      318 <212> TYPE: DNA
      320 <213> ORGANISM: Artificial Sequence
      323 <220> FEATURE:
W--> 325 <221> NAME/KEY:
      327 <222> LOCATION:
      329 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer ITR1
      332 <400> SEQUENCE: 12
```

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                    RAW SEQUENCE LISTING            DATE: 02/07/2002
                    PATENT APPLICATION:  US/10/038,271    TIME: 18:52:01

                    Input Set : N:\Crf3\RULE60\10038271.txt
                    Output Set: N:\CRF3\02072002\J038271.raw
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        337 <210> SEQ ID NO: 13
        339 <211> LENGTH: 27
        341 <212> TYPE: DNA
        343 <213> ORGANISM: Artificial Sequence
        346 <220> FEATURE:
W--> 348 <221> NAME/KEY:
        350 <222> LOCATION:
        352 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer ITR2
        355 <400> SEQUENCE: 13
        357     ggggtctaga catcatcaat aatatac                                    27
        360 <210> SEQ ID NO: 14
        362 <211> LENGTH: 32
        364 <212> TYPE: DNA
        366 <213> ORGANISM: Artificial Sequence
        369 <220> FEATURE:
W--> 371 <221> NAME/KEY:
        373 <222> LOCATION:
        375 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR primer PCR/MLP1
        378 <400> SEQUENCE: 14
        380     ggcgaattcg tcgacatcat caataatata cc                              32
        383 <210> SEQ ID NO: 15
        385 <211> LENGTH: 32
        387 <212> TYPE: DNA
        389 <213> ORGANISM: Artificial Sequence
        392 <220> FEATURE:
W--> 394 <221> NAME/KEY:
        396 <222> LOCATION:
        398 <223> OTHER INFORMATION: Description of Artificial Sequence: PCT primer PCR/MLP2
        401 <400> SEQUENCE: 15
        403     ggcgaattcg gtaccatcat caataatata cc                              32
        406 <210> SEQ ID NO: 16
        408 <211> LENGTH: 17
        410 <212> TYPE: DNA
        412 <213> ORGANISM: Artificial Sequence
        415 <220> FEATURE:
W--> 417 <221> NAME/KEY:
        419 <222> LOCATION:
        421 <223> OTHER INFORMATION: Description of Artificial Sequence: PCT primer PCR/MLP3
        424 <400> SEQUENCE: 16
        426     ctgtgtacac cggcgca                                               17
        430 <210> SEQ ID NO: 17
        432 <211> LENGTH: 50
        434 <212> TYPE: DNA
        436 <213> ORGANISM: Artificial Sequence
        439 <220> FEATURE:
W--> 441 <221> NAME/KEY:
        443 <222> LOCATION:
        445 <223> OTHER INFORMATION: Description of Artificial Sequence: PCT primer HP/asp1
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RAW SEQUENCE LISTING   DATE: 02/07/2002
PATENT APPLICATION: US/10/038,271   TIME: 18:52:01

Input Set : N:\Crf3\RULE60\10038271.txt
Output Set: N:\CRF3\02072002\J038271.raw

```
  448 <400> SEQUENCE: 17
  450     gtacactgac ctagtgccgc ccgggcaaag cccgggcggc actaggtcag           50
  453 <210> SEQ ID NO: 18
  455 <211> LENGTH: 50
  457 <212> TYPE: DNA
  459 <213> ORGANISM: Artificial Sequence
  462 <220> FEATURE:
W--> 464 <221> NAME/KEY:
  466 <222> LOCATION:
  468 <223> OTHER INFORMATION: Description of Artificial Sequence: PCT primer HP/asp2
  471 <400> SEQUENCE: 18
  473     gtacctgacc tagtgccgcc cgggctttgc ccgggcggca ctaggtcagt           50
  476 <210> SEQ ID NO: 19
  478 <211> LENGTH: 55
  480 <212> TYPE: DNA
  482 <213> ORGANISM: Artificial Sequence
  485 <220> FEATURE:
W--> 487 <221> NAME/KEY:
  489 <222> LOCATION:
  491 <223> OTHER INFORMATION: Description of Artificial Sequence: PCT primer HP/cla1
  494 <400> SEQUENCE: 19
  496     gtacattgac ctagtgccgc ccgggcaaag cccgggcggc actaggtcaa tcgat       55
  499 <210> SEQ ID NO: 20
  501 <211> LENGTH: 55
  503 <212> TYPE: DNA
  505 <213> ORGANISM: Artificial Sequence
  508 <220> FEATURE:
W--> 510 <221> NAME/KEY:
  512 <222> LOCATION:
  514 <223> OTHER INFORMATION: Description of Artificial Sequence: primer HP/cla2
  517 <400> SEQUENCE: 20
  519     gtacatcgat tgacctagtg ccgcccgggc tttgcccggg cggcactagg tcaat       55
  522 <210> SEQ ID NO: 21
  524 <211> LENGTH: 5620
  526 <212> TYPE: DNA
  528 <213> ORGANISM: Artificial Sequence
  531 <220> FEATURE:
W--> 533 <221> NAME/KEY: Ad5 left terminus
  535 <222> LOCATION: 1..457
  538 <221> NAME/KEY: enhancer
  540 <222> LOCATION: 458..969
  543 <221> NAME/KEY: exon
  545 <222> LOCATION: 970..1204
  548 <221> NAME/KEY: gene
  550 <222> LOCATION: 1218..2987
  553 <221> NAME/KEY: polyA_signal
  555 <222> LOCATION: 3018..3131
W--> 558 <221> NAME/KEY: pUC12 backbone
  560 <222> LOCATION: 3132..5620
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VERIFICATION SUMMARY
PATENT APPLICATION: US/10/038,271

DATE: 02/07/2002
TIME: 18:52:02

Input Set : **N:\Crf3\RULE60\10038271.txt**
Output Set: **N:\CRF3\02072002\J038271.raw**

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L:70  M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:1
L:93  M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:2
L:117 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:3
L:140 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:4
L:163 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:5
L:187 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:6
L:210 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:7
L:233 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:8
L:256 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:9
L:279 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:10
L:302 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:11
L:325 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:12
L:348 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:13
L:371 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:14
L:394 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:15
L:417 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:16
L:441 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:17
L:464 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:18
L:487 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:19
L:510 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:20
L:533 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:21
L:558 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:21
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